Cambridge Lower Secondary Mathematics

Tutorial 3

Year 7

Instruction : Answer all the questions below.

Time allocated : 1 hour

Total marks : / 35

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QUESTION 1

Solve the following questions.

i. $-4 + 6 =$

ii. $9 + (-5) =$

iii. $-8 - 7 =$

iv. $9 - (-6) =$

v. $-8 \times 6 =$

vi. $-12 \times -7 =$

vii. $9 \times (5 + -8) =$

viii. $-81 \div 9 =$

ix. $96 \div _____ = -12$

x. $132 \div (-6 - 5) =$

[10]

QUESTION 2

Find the lowest common multiple of 9 and 12.

[1]

QUESTION 3

Find the highest common factors of 36 and 84.

[1]

QUESTION 4

Use tests for divisibility to show that 67524 is divisible by 2 and by 4 but not by 5.

[3]

QUESTION 5

Solve the following questions.

i. $5^2 =$

ii. $3^3 =$

iii. $\sqrt{121} =$

iv. $\sqrt[3]{125} =$

v. $\sqrt{169} - \sqrt[3]{64} =$

vi. $\sqrt[3]{216} \times \sqrt{64} =$

[6]

QUESTION 6

Write an expression for each of these situations.

i. $x\ more\ than\ y =$

ii. $r\ three\ times\ more\ than\ p =$

iii. $two\ s\ less\ than\ four\ times\ t =$

iv. $four\ times\ a\ divide\ by\ b =$

[2]

QUESTION 7

Which of the following expressions are the equivalent expressions. Circle the equivalent expressions.

$2a + 2$	$2 + 2 + a$	$2 + 2 \times a$	$2 \times a + 2$

[1]

QUESTION 8

Jenifer writes a formula for the number of hours in any number of days.

He writes : number of hours = 24 × number of days

a) **Explain why this formula is correct.**

b) **Write the formula using letters. Use *h* for hours and *d* for days.**

c) **Use your formula to work out the number of hours in six days.**

[3]

QUESTION 9

Simplify each of these expressions.

a) $\mathbf{5a - 4a + 8a - 2b - 8b + 6c =}$

b) $\mathbf{12 + 8g^2 - 5h + 9h - 6g^2 - 4 =}$

[2]

QUESTION 10

Expand the brackets.

a) $\mathbf{5(x + 3) =}$

b) $\mathbf{8(2w - 4v + 5) =}$

[2]

QUESTION 11

Solve these equations.

a) $x - 9 = -18$

b) $9n = 72$

c) $3w + 5 = -12$

d) $2u + 4 = 14$

[4]